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121 APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/500.786 07/02/2004 8458 Ralph C. Longsworth SHI 19 251 (310010-00106) TITLE OF INVENTION: PULSE TUBE COOLING BY CIRCULATION OF BUFFER GAS

APPLN, TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1440 \$300 \$1740 01/16/2008 EXAMINER ART UNIT CLASS-SUBCLASS DOERRLER, WILLIAM CHARLES 3744 062-600000 Change of correspondence address or indication of "Fee Address" (37 CFR 1,363). 2. For printing on the patent front page, list |Katten Muchin (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, 2Rosenman LLP (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer 2 registered patent attorneys or agents. If no name is listed, no name will be printed. Number is required.

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PLEASE NOTE: Unless an assignce is identified below, no assignce data will appear on the patent. If an assignce is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE SHI-APD Cryogenics, Inc. Sumitomo Heavy Industries, Ltd. (B) RESIDENCE: (CITY and STATE OR COUNTRY) Allentown, PA

Tokyo, Japan

Please check the appropriate assignee category or categories (will not be printed on the patent):

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4a The following fce(s) are submitted: 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) Issue Fee
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a. Applicant claims SMALL ENTITY status, See 37 CFR 1.27. □ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

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